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EXAMINER

WANG, RONGFA PHILIP

ART UNIT

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2191

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/807,833

Applicant(s)

GOLDSTEIN ET AL.

Examiner

PHILIP WANG

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6, 8-9, 12-13, 14-17, 22-27, 34-37, 44, 46, 48, 50-51, and 54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-21, 28-33 and 38-43 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 8, 9, 12-17, 22-27, 34-37, 44, 46, 48, 50, 51 and 54 is/are rejected.
- 7) ☒ Claim(s) 4, 5, 7, 10, 11, 45, 47, 49, 52 and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of Priorities Filed (PTO-402)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Detail Action

1. This office action is in response to the communication filed on 3/1/2010.
2. Claims 1-3, 6, 8-9, 12-13, 14-17, 22-27, 34-37, 44, 46, 48, 50-51, and 54 are pending.

Priority

3. The priority date considered for this application is 6/20/2003.

Allowable Subject Matter

4. Claims 18-21, 28-33, and 38-43 are allowed.
5. Claims 4-5, 7, 10-11, 45, 47, 49, 52-53 are objected and would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 46 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 46 recites the limitation "the second two or more instruction". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Amrhein et al (herein, Amrhein, 2002/0116699).

As per claim 1, Amrhein discloses

compiling ([0005], " a compiler device for compiling the control program...") **at least a portion of a source code program defined by a waypoint during the editing of the source code program** ([0005], "...The device for editing can be used to mark all of subarea of the control program...The compiler can be used to produce...code which contains debug instrumentation for the marked area..." where the marked area corresponds a waypoint defined during an editing session by an editor. See also Fig. 2 item 7 for a marked area having upper and lower bounds.).

2. Claims 1-3, 6, 8-9, 12-13, 15-17, 22-25, 27, 34-37, **44**, 46, 48, 50-51, and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Robert I. Pitts (herein, Pitts, "Using

Emacs for Programming" 1993-2000, retrieved from
<http://www.cs.bu.edu/teaching/tool/emacs/programming/#compile> On 5/12/2010).

As per claim 1, Pitts discloses

at least a portion of a source code program defined by a waypoint during the editing of the source code program (page 4, section 3, "Using multiple buffer inside Emacs", "...4th para., "Suppose, we need to work with 2 files in Emacs,...sum1.cpp and avg1.cpp", two files are being edited; while the editing session is open "sum1.cpp" is being compiled – see page 5, section 4, 'Compiling inside Emacs', "...can also compile them inside or Emacs..." where it shows such compiling is during the editing of the source program; page 6, top portion, "g++ -o total sum1.cpp", where it shows a compiling command "g++" being invoked to compile source code file "sum1.cpp" and output it to "total". In this scenario, "sum1.cpp" has a defined beginning and end points that corresponds to an upper and lower bounds of a waypoint. Per specification, page 9, 11-13, "...the waypoint is selected...essentially constitutes the entire source code program...".)

As per claim 2, the rejection of claim 1 is incorporated; Pitts discloses

identifying the waypoint in an edited source code during editing of the source code (continue from rejection of claim 1, where "sum1.cpp" is considered as a waypoint and is identified inside an Emacs editing session.); **and**
compiling the source code up to the identified waypoint before completing the edit of the source code(page 7, line 1, "...examine and fix the errors...").

As per claim 3, the rejection of claim 1 is incorporated; Pitts discloses

wherein identifying the waypoint includes one of identifying the waypoint from a static definition and identifying the waypoint from a dynamic definition (the use of a source code name "SUM1.cpp" is considered a static definition.)

As per claim 6, the rejection of claim 1 is incorporated; Pitts discloses

saving the edited source code (page 7, item 5., "...save the file...").

As per claim 8, Pitts discloses

identifying a waypoint in an edited source code program during editing of the source code program (page 1, 1st para., "Emacs...useful for...editing, compiling..."; page 5, 5th para., "Suppose we want to spend some time on sum1.cpp", where sum1.cpp is the identified waypoint that corresponds to the beginning and end of the program during editing.); **and compiling the source code program up to the identified waypoint during at least a portion of a time period in which the source code program is being edited**(page 4, section 3, "Using multiple buffer inside Emacs", "...4th para., "Suppose, we need to work with 2 files in Emacs,..sum1.cpp and avg1.cpp", two files are being edited; while the editing session is open "sum1.cpp" is being compiled -- see page 5, section 4, 'Compiling inside Emacs', "...can also compile them inside or Emacs..." where it shows such compiling is during the editing of the source program; page 6, top portion, "g++ -o total sum1.cpp", where it shows a compiling command "g++" being invoked to compile source code file "sum1.cpp" and output it to "total". In this scenario, "sum1.cpp" has a defined beginning and end points that corresponds to an

upper and lower bounds of a waypoint. Per specification, page 9, 11-13, "...the waypoint is selected...essentially constitutes the entire source code program..." since the Emacs editing session is open, the compiling of sum1.cpp is performed during at least a portion of a time period in which the sum1.cpp file is being edited.)

As per claim 9, see rejection of claim 3.

As per claim 12, Pitts discloses

identifying a file reader portion of the compiler; and

modifying the identified file reader to read a portion of a source code program defined by

a waypoint from a standard input (page 4, section 3, "Using multiple buffer inside Emacs",

"...4th para., "Suppose, we need to work with 2 files in Emacs,..sum1.cpp and avg1.cpp", two

files are being edited; see page 5, section 4, 'Compiling inside Emacs', "...can also compile ten inside or Emacs..." where it shows such compiling is during the editing of the source program;

page 6, top portion, "g++ -o total sum1.cpp", where it shows a compiling command "g++" being invoked to compile source code file "sum1.cpp" and output it to "total". In this scenario, the

source code named "sum1.cpp" is considered a waypoint as it defines a region of source code of sum1.cpp from the beginning to the end of the source code file being named. Per specification,

page 9, 11-13, "...the waypoint is selected...essentially constitutes the entire source code

program...", therefore the entire source code program can be a waypoint. The "g++ -o total sum1.cpp" redirects the g++ compiler to read from standard input the content of sum1.cpp.).

As per claim 13, the rejection of claim 12 is incorporated;

Pitts discloses

wherein modifying the identified file reader to read from the standard input includes modifying the identified file reader to read from an open system call (see above where the file reader of g++ reads from an UNIX call.).

As per claim 15, see rejection of claim 3.

As per claim 16, the rejection of claim 12 is incorporated;

Pitts discloses

wherein the waypoint defines a lower bound of the portion of the source code program (where sum1.cpp defines the end of the portion of the source code program when the portion is the whole program)

As per claim 17, the rejection of claim 12 is incorporated;

Pitts discloses

wherein the waypoint defines an upper bound of the portion of the source code program(where sum1.cpp defines the beginning of the portion of the source code program when the portion is the whole program)

As per claim 22,

Art Unit: 2191

Pitts discloses

triggering the compilation of a portion of a source code program whose upper bound is defined by an identified waypoint; and

compiling the portion of the source code program whose upper bound is defined by the identified waypoint(page 6, top portion, “g++ -o total sum1.cpp” where source file sum1.cpp identifies a waypoint with an upper bound: the beginning of the program. Triggering is interpreted as initiating.).

As per claim 23, the rejection of claim 22 is incorporated;

wherein triggering the compilation of the portion of the source code includes identifying the waypoint (continue from above, where sum1.cpp is identified).

As per claim 24, Pitts discloses,

Identifying a command and associating it with a file that is being edited (see rejection of claim 12, the command is g++, the file being edited is sum1.cpp);

modifying a file reader of a compiler to read from a standard input (The “g++ -o total sum1.cpp” redirects g++ to read from standard input the content of sum1.cpp.); **and**

triggering the compilation of a portion of a source code program whose upper bound is defined by an identified waypoint (and compiles it.);

Art Unit: 2191

invoking the compiler to read the file from the modified file reader through the standard

input (The file reader of the compiler g++ is being modified to read the sum1.cpp file through standard input.).

As per claim 25, see rejection of claim 13.

As per claim 27, see rejection of claim 23.

As per claim 34, see rejection of claim 24 (additionally, page 6, 2nd paragraph, shows it is an UNIX redirection command)

As per claim 35,

wherein the portion comprises a portion of the source code program defined by the start of the source code program and the waypoint (sum1.cpp defines the start and end of the source code).

As per claim 36,

wherein the portion comprises a portion of the source code program defined by the waypoint and the end of the source code program(sum1.cpp defines the start and end of the source code).

As per claim 37,

Art Unit: 2191

wherein the waypoint is identified by one of identifying the waypoint from a static definition and identifying the waypoint from a dynamic definition (see rejection of claim 3).

As per claim 44, Pitts discloses,

identifying at least two or more instructions in a file to compile; and
compiling the identified instructions while the file is being edited (see rejection of claim 1, where sum1.cpp contains at least two or more instructions in a file. The compilation is inside Emacs while the editing session is still ongoing. page 4, section 3, "Using multiple buffer inside Emacs", "...4th para., "Suppose, we need to work with 2 files in Emacs,..sum1.cpp and avg1.cpp", two files are being edited;).

As per claim 46, the rejection of claim 44 is incorporated;

Pitts discloses,

identifying at least two more instructions in the file during editing; and
compiling the second two or more instruction while the file is being edited (similar to rejection of claim 44 where file sum1.cpp contains multiple instructions).

As per claim 48, see rejection of claim 6.

As per claim 50, Pitts discloses,

identifying an upper bound for a portion of the source code program to compile;

identifying a lower bound for the portion; and
compiling the portion defined by the upper and lower bounds during an editing session
on the source code program(see rejection of claim 1, where sum1.cpp defines the beginning and end of a program corresponding to upper and lower bound of a program. Compiling sum1.cpp corresponds to compiling the portion defined by the beginning and end of sum1.cpp.).

As per claim 51, see rejection of claim 3.

As per claim 54, see rejection of claim 8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert I. Pitts (herein, Pitts, "Using Emacs for Programming" 1993-2000, retrieved from <http://www.cs.bu.edu/teaching/tool/emacs/programming/#compile> On 5/12/2010 in view of Ousterhout et al. (herein Ousterhout, 2004/0194060).

As per claim 14, the rejection of claim 13 is incorporated;

Pitts discloses

wherein modifying the identified file reader to read from the open system call includes modifying the identified file reader to read from a UNIX command (see rejection of claim 13 where a g++ UNIX command is disclosed).

Pitts does not specifically disclose

- The UNIX command can be gcc command.

However, Ousterhout discloses

- **The UNIX command can be gcc command** ([0056], "...standard build applications such gcc...").

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the teachings of Ousterhout into the teachings of Pitts to include the limitation disclosed by Ousterhout. The modification would be obvious to one of ordinary skill in the art to want to support standard build application gcc it is widely used in development environment.

As per claim 26, see rejection of claim 14.

Response to Arguments

4. Applicant's arguments with respect to argued claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

It is noted that any citation **[[s]]** to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. **[[See, MPEP 2123]]**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Wang whose telephone number is 571-272-5934. The examiner can normally be reached on Mon - Fri 8:00AM - 4:00PM. Any inquiry of general nature or relating to the status of this application should be directed to the TC2100 Group receptionist: 571-272-2100.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip Wang/

Application/Control Number: 10/807,833

Page 14

Art Unit: 2191

Primary Examiner, Art Unit 2191